STATE OF CALIFORNIA ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No.01-AFC-21
Application for Certification of	)	
the Tesla Power Project	)	
	)	

OPENING BRIEF OF COMMISSION STAFF ON THE TESLA POWER PROJECT APPLICATION FOR CERTIFICATION

I. Introduction

The application for certification (AFC) for the Telsa Power Project (TPP) was docketed with the California Energy Commission (Commission) on October 10, 2001, and deemed data adequate by the Commission on January 9, 2002. On July 30, 2003, a Pre-hearing conference was held in the City of Tracy to address outstanding issues, administrative matters, and the scheduling of evidentiary hearings. Evidentiary hearings for the TPP were held on September 10, 11, 12, and 18, 2003. On October 17, 2003, the hearing officer sent an email to all parties serving as notice that briefs for the proceeding are to be filed Monday, November 3, 2003, by 5 p.m. The applicant contested staff's proposed recommendations in the Final Staff Assessment (FSA), and subsequent additional written testimony (Exhibits 51, 52, 53, and 54) for the subject areas of Water and Soil Resources, and Air Quality. Additional contested issues in the areas of Biological Resources, Public Health, Hazardous Materials Management, Worker Safety and Fire Protection, Air Quality, Land Use, and Water and Soil Resources were raised by interveners Californians for Renewable Energy, Inc., (CARE), and Mr. Bob Sarvey. Staff is briefing only those areas in which contested issues have been raised.

II. Staff's proposed condition of certification, AQ-SC7, should be imposed on TPP to ensure sufficient mitigation of the Project's significant adverse impacts on San Joaquin Valley's air

A. The project has the potential to cause significant adverse impacts to both local and regional air quality

The proposed project is located in eastern Alameda County, east of the Altamont Pass, and within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The project is physically situated in the San Joaquin Valley, yet the BAAQMD permitting requirements do not consider transport to the neighboring air basin. (Exh. 51 p. 4.1-48) The project site is within one mile of the San Joaquin Valley floor, and experiences wind patterns that predominantly carry pollutants in the direction of the San Joaquin Valley. The San Joaquin Valley Air Pollution Control District (SJVAPCD) rules do not apply to the TPP despite the fact that the majority of the impacts will be felt in the SJVAPCD. (Exh. 51 p. 4.1-48) Because of the more severe existing air quality problems in the SJVAPCD, those rules would have required more offsets than the BAAQMD rules require (FSA p. 4.1-18). Therefore, mitigation in addition to that proposed in the Final Determination of Compliance (FDOC) for TPP is necessary to mitigate potential significant adverse air quality impacts felt in the San Joaquin Valley.

B. The offsets being utilized to satisfy the BAAQMD requirements are insufficient to mitigate impacts to the San Joaquin Valley air shed

BAAQMD rules require the applicant to provide emission reduction credits (ERCs) for new emissions of NOx, VOC, and PM10. The applicant has proposed an offset package that meets the requirements of the BAAQMD rules (BAAQMD Rules 2-2-302 and 302), as set forth in the Final Determination of Compliance (FDOC) and errata to the FDOC. (Exh. 23 and Exh 24)

Staff has concern regarding the road paving offsets proposed by applicant as a portion of its PM10 offsets package. The majority of the emissions from the TPP

will be combustion emissions that are generally PM2.5, which have more severe health impacts, than PM10. The more critical nature of PM2.5 was confirmed by Dennis Jang of the BAAQMD in evidentiary hearings (RT 9/18/03 p. 206: 8-25; 207:1-25) and by the applicant's witness Mr. Stein (RT 9/18/03 p. 154:9-25; 155:1-5), and although the BAAQMD does not yet consider PM2.5 in the process of determining compliance with BAAQMD rules, the BAAQMD is of the opinion that it is reasonable and appropriate for the Energy Commission to analyze PM2.5 impacts under CEQA (RT 9/18/03 p. 207:7-11). The majority of the PM that results from unpaved roads is non-combustion PM10, made up mainly of particles larger than PM2.5, rather than the more harmful PM2.5 that the project will be emitting. (RT 9/18/03 p. 209:9-17)

The applicant's ERC's would enable compliance with BAAQMD offset requirements, and would provide a fraction of the applicant's additional mitigation for significant adverse environmental impacts to the San Joaquin Valley. The applicant appears to acknowledge that impacts from the project will have an impact in the San Joaquin Valley above and beyond what is required to offset emissions by the BAAQMD as it has entered into an agreement with the SJVAPCD which will provide additional mitigation for the potential significant adverse impacts caused by the project. (Exh. 22; Exh. 47 p. 7-8)

C. The Air Quality Mitigation Agreement between the applicant and SJVAPCD would provide insufficient mitigation of the Project's air quality impacts

Staff as an independent party must independently assess whether the mitigation proposed by applicant is sufficient to mitigate impacts to less than significant. (Cal. Code Regs. Tit. 20, §§ 1742, 1742.5.)

Based on its analysis, staff believes the AQMA is a starting point for addressing the residual impacts of those emissions that the BAAQMD ERCs would not fully offset or mitigate with respect to impacts to the San Joaquin Valley. The AQMA does not provide specific strategies for air quality mitigation. The AQMA does provide some information as to how the agreement could be used to reduce

project impacts. Staff has no objection to the applicant utilizing the AQMA to address residual impacts that are not mitigated through the BAAQMD ERCs. However, staff does not concur with the end calculations that resulted in the AQMA, and staff would require assurance that mitigation be in place prior to the start of operation.

Staff reviewed the AQMA after its adoption, when provided by the applicant and district in May of 2002. Staff noted that the calculations/tables set forth in the agreement do not show matching values for PM10 impacts and benefits. The benefits of the BAAQMD ERCs were calculated on an annual basis and the impacts were only analyzed for quarters one and four. Staff, thus, concluded that the benefits relative to the impacts were misrepresented by a factor of 2. The applicant's witness hints at this error by noting that the benefits would exceed the calculated impact, but does not elaborate on how this could be possible (RT 9/18/03 p. 121: 13-2). If the impacts are to be calculated during quarters one and four (non-attainment quarters) when the actual impacts occur, then the benefits should also be valued in a similar fashion. Benefits derived from the AQMA need to occur during the same season that the impacts occur in order to achieve adequate mitigation. (RT 9/18/03 p. 241 10-25; p. 242: 1-11; Exh. 54 p.3)

The BAAQMD offset package and the AQMA in and of themselves do not provide a complete mitigation package for the environmental impacts that TPP would cause in the area of air quality. Mitigation measures need to be tied to specific action plans in order to be effective in reducing project impacts to less than significant. Staff does not believe a plan, such as the AQMA, of unknown efficacy can be relied upon. In order to reasonably conclude that impacts will be mitigated, any mitigation measures required by the Commission should include realistic performance standards or criteria such as those set forth in both AQ-SC7 and the recommended revised AQ-SC7 to ensure the mitigation addresses the project's significant effects. Staff believes it has included in its proposed condition all the elements necessary to ensure adequate mitigation. Staff also

believes that AQ-SC7 both the original and revised have sufficient performance standards built that will ensure such mitigation is implemented and maintained throughout the life of the project. (Exh. 51 p. 4.1-44 through 4.1-45)

D. Staff's proposed revised condition of certification AQ-SC7 will ensure that significant adverse impacts are mitigated to a level of less than significant

Based on direction given by the Committee, Staff has proposed a revised AQ-SC7, taking into consideration input from the applicant and interveners. (Exh. 124 p. 7-8) The revised AQ-SC7 offers the applicant flexibility in mitigating potential significant adverse impacts to air quality in the local and regional area. Staff believes that the revised condition AQ-SC7 set forth in this brief and supplemental testimony attached to this brief (Exh. 124 pp. 4-8), if required, would be adequate to mitigate adverse environmental impacts to air quality caused by project operation. Staff has no objection to the AQMA or the proposed Memorandum of Understanding (MOU) with the City of Tracy (the City) being utilized to provide part of the appropriate mitigation for TPP impacts. (RT 9/18/03 p.339:12-25; p.340; p.341:1-12). The staff proposed revised AQ-SC7 is as follows:

AQ-SC7 The project owner shall limit facility emissions equivalent to the amounts shown in Table AQ-SC7A. The seasonal emission limits in Table AQ-SC7A shall be increased, subject to CPM approval, to reflect all emission reductions obtained under this condition by the owner/operator on a ton for ton basis, up to a maximum increase in the amount of the targets shown in Table AQ-SC7B. Seasonal emission limits shall be updated to reflect the project owner/operator's progress in securing emission reductions. Notwithstanding the above, the project owner/operator shall also comply with all emission rate limits set forth in Conditions AQ-1 to AQ-62.

TABLE AQ-SC7A
SEASONAL EMISSION LIMITS[1]

Seasonal Period	*Quarter*	*NO_x (ton)*	*PM10 (ton)*	*SO_x (ton)*	*VOC (ton)*
October through March	Q1&Q4	103.1	48.7	7.4	--
April through September	Q2&Q3	95.8	--	--	19.9

[1]The seasonal emission limits shown above are base amounts assuming no emission reductions are obtained by the owner/operator. Seasonal emission limits shall be increased by the value of the emission reductions actually achieved for each seasonal period. (For example, if 10 ton of NO_x reduction is obtained in Q1/Q4, the October through March seasonal emission limit would be increased as follows: 103.1 ton +10 ton = 113.1 ton).
[2]-- denotes no seasonal limit for the period

TABLE AQ-SC7B
EMISSION REDUCTION TARGETS

Seasonal Period	*Quarter*	*NO_x (ton)*	*PM10 (ton)*	*SO_x (ton)*	*VOC (ton)*
October through March	*Q1&Q4*	*21.9*	*46.3*	*7.4*	*--*
April through September	*Q2&Q3*	*29.1*	*--*	*--*	*10.3*

The emissions reductions to be used by the project owner/operator to increase the Seasonal Emission Limits set forth in Table AQ-SC7A and satisfy the targets in Table AQ-SC7B shall be obtained through an emission reduction program administered by the San Joaquin Valley Air Pollution Control District and/or an air quality improvement program administered by the City of Tracy, as follows.

a) The project owner/operator may use the Air Quality Mitigation Agreement and/or an air quality improvement program between FPL Energy and the City of Tracy, administered by the City of Tracy, as a means to achieve some or all of the emission reductions. The project owner/operator shall provide to the CPM for review and approval a copy of an initial plan for allocating the funds or identification of the method of obtaining the emission reduction targets. The project owner/operator shall also submit reports for CPM review and approval identifying the emission reductions achieved to-date.

b) The project owner/operator may acquire and surrender to the SJVAPCD emission reduction credits to achieve some or all of the emission reductions to increase seasonal emission limits.

c) The project owner/operator shall use its best efforts to obtain emission reductions in the northern region of the San Joaquin Valley. If, despite demonstrated best efforts, it is not feasible to obtain the requisite emission reductions within the northern region of the San Joaquin Valley, emission reductions from outside the northern region of the San Joaquin Valley will be permitted, subject to CPM review and approval.

d) NOx emission reductions obtained from the period April through September (Quarters 2 & 3) may be used to increase NOx seasonal emission limits during either seasonal period.

e) Interpollutant emission reductions shall be permitted under this condition at the ratios specified below:

- NO_x reductions for PM10 emissions: 2.2:1
- SO_2 reductions for PM10 emissions: 1.2:1
- NO_x reductions for VOC emissions: 1:1
- NO_x reductions for SO_2 emissions: 2:1

f) No double or multiple counting of interpollutant reductions shall be allowed.

The seasonal emission limits set forth in Table AQ-SC7A shall be applicable commencing upon the start of first combustion turbine fire. Once the project owner/operator has obtained the full amounts of the emission reduction targets identified in Table AQ-SC7B to the satisfaction of the CPM the seasonal emission limits specified above will no longer apply.

Emission reduction credits from years prior to 1990 (pre-1990 credits) shall only be allowed with concurrence from U.S. EPA. The northern region of the San Joaquin Valley is defined as San Joaquin, Stanislaus, and Merced Counties.

Verification Sixty (60) days after the delivery of the first Combustion Turbine Generator (CTG) to the project site, the project owner/operator shall provide evidence to the CPM of having provided the funds identified in the Air Quality Mitigation Agreement to the San Joaquin Valley Air Pollution Control District (SJVAPCD) along with the initial plan for allocating the funds or identifying alternate emission reductions. After first combustion turbine firing, the project owner/operator shall provide the CPM with seasonal semi-annual reports (by January 30 and July 30 of each year of operation) documenting compliance with the emission limits of this condition. The semi-annual report shall list the tons of emission reductions obtained in the San Joaquin Valley, the date the reduction occurred, the method used to secure these reductions, the location of emission reductions, and the running total emission reduction credits secured and surrendered, if any. The report shall account for any interseasonal or interpollutant credit applied under AQ-SC7(d) or (e). Emissions data to verify compliance with each seasonal cap shall be derived from data submitted as required by Condition AQ-13 or Condition AQ-40. Each semi-annual seasonal report shall include an updated determination of applicable facility seasonal emission limits by revising Table AQ-SC7A. (Exh. 124 pp. 4-8)

There are significant changes between this version of AQ-SC7 and the version originally presented by staff in their FSA. (Exh. 51 p. 4.1-5 through 4.1-56)

However, staff believes that these changes would still provide appropriate

mitigation and allow the applicant flexibility in addressing the additional residual adverse impacts to air quality in the San Joaquin Valley.

The fundamental change to AQ-SC7 is to consolidate the quarterly emission targets of the condition into six-month “seasonal” targets and to implement an applicant-proposed seasonal emission limit on the project. As emission reductions are realized from the AQMA and possibly the agreement with the City, the emission caps from Table AQ-SC7A would be raised. Eventually, when all emission reductions are achieved in accordance with Table AQ-SC7B, the seasonal cap shown in AQ-SC7A would be reduced to zero. Staff believes that this approach is consistent with the goals of seasonal mitigation as presented by staff in its testimony. (Exh. 51 pp. 4.1-45 thru 48; RT 9/18/03 pp. 244-256: 1-7)

The revised AQ-SC7 allows for limited interseasonal trading to satisfy NOx mitigation targets in the winter. This means that surplus emission reductions obtained during ozone nonattainment quarters (Q2 and Q3) may be exchanged to satisfy the target in winter quarters (Q1 and Q4). This interseasonal exchange is consistent with SJVAPCD Rule 2201 Section 4.13.8. (Exh. 54 p. 6: Exh. 124 pp. 5-6)

The revised condition also allows for interpollutant trading to satisfy the PM10, SOx, and VOC targets. Staff does not object to the surplus NOx and SOx emission reductions being traded to satisfy the target of PM10 set forth in Table AQ-SC7 (Exh. 124 pp. 5-6). Surplus reductions of NOx may be traded to satisfy the target of VOC or SOx as well. Staff believes flexibility should be allowed for interpollutant exchanges, as well as the interseasonal exchanges discussed above, as long as these exchanges are consistent with SJVAPCD rules. (Exh. 124 pp. 5-6)

In addition to the above changes to the original AQ-SC7, staff has also added language to allow reductions obtained from the proposed MOU with the City to satisfy targets set forth in Table AQ-SC7B. (Exh. 124 p. 9; Exh. 162) Other

aspects of the revised AQ-SC7are unchanged from the original AQ-SC7in that the reductions could occur through the use of the AQMA, the use of ERCs where necessary, and the use of pre-1990 credits only if allowed with EPA concurrence. (**Exh. 51 pp. 41-56**).

Staff also believes that the revised AQ-SC7 presented in staff's additional testimony filed with this brief on 11/03/03 (Exh. 124 pp. 7-8) would fully mitigate for any significant adverse impacts that may be caused by the project. Staff originally recommended Condition of Certification AQ-SC7 in the FSA, as stated above, because staff found that compliance with BAAQMD requirements would not sufficiently reduce the potential project impacts to a level of insignificance. The applicant proposes to use the AQMA described above to supplement the mitigation required by the BAAQMD ERC package. (Exh. 23; Exh. 24:, RT 9/18/03 p. 109: 1-8) Throughout the proceeding, staff has been concerned that the AQMA may not fully mitigate the air quality impacts in San Joaquin Valley, and has strived to establish a measure of performance that will ensure full mitigation of project impacts. This concern led staff to develop an emission reduction target that could be satisfied through the AQMA, MOU with the City (Exh. 162) and the applicant, or some other mitigation scheme such as retiring of SJVAPCD ERCs.

The goal of the AQ-SC7 is to ensure that project emissions do not exceed the amount of reductions provided to the San Joaquin Valley, either by BAAQMD ERCs or by local mitigation projects such as those funded with the AQMA or the MOU with the City, and that mitigation be in place at all times during project operations, from commissioning to decommissioning of the TPP. The applicant appears to agree with the process for implementing the mitigation set forth in AQ-SC7 as revised, but not with the targets set forth in Table AQ-SC7B (Exh. 124 p. 7), and the timing for implementation of the proposed mitigation. Staff will be able to more fully respond to objections and concerns raised by the applicant to proposed revised AQ-SC7 in reply briefs, after the applicant has fully articulated its concerns in its opening brief.

III. Staff's Proposed Conditions Would Sufficiently Protect Public Health

The purpose of staff's public health analysis is to determine if toxic emissions from the proposed TPP would pose potentially significant adverse public health impacts or would violate standards set for the protection of public health. (Exh. 51 p. 4.7-1 through 4.7-26) Staff determined that the toxic air emissions from the operation of the proposed facility and its auxiliary equipment would be at insignificant levels with the implementation of the staff's air quality recommendations. Thus, the project does not require mitigation beyond that proposed by applicant and staff, including staff's proposed AQ-SC7 (see Air Quality section above for further discussion). (RT 9/18/03 p. 397: 1-7) Although concerns have been raised by the interveners as to the potential for public health impacts of the proposed TPP, no evidence has been submitted to contradict staff's analysis and conclusions. Therefore, staff requests that the Committee adopt staff's recommended condition of certification for Public Health set forth in Tesla Power Project Response to the Committee, and stated during the evidentiary hearing held on September 18, 2003. (Exh. 124 p. 20)

IV. The Proposed Project Complies With All Applicable Land Use Laws

Staff's land use analysis focuses on two main issues: the project's consistency with local land use plans, ordinances and policies; and the project's compatibility with existing and planned land uses. (Exh. 51, section 4.5; 52, section 2.5; 53 pp. 9-10, and Exh. 124 p. 18) The project is proposed to be located in an area governed by Alameda County's East County Area Plan, which was amended on October 7, 2002, by a successful local initiative entitled Measure D. (Exh. 75A) In determining whether the project complies with applicable laws, ordinances, regulations, and standards, (LORS), staff gives due deference to an agency's determination of a project's consistency with LORS under its jurisdiction. (Cal. Code Reg., tit. 20, §1714.5(b).)

Mr. Adolph Martinelli, former Agency Director of the Alameda County Community Development Agency, acting as consultant to the county for purposes of the evidentiary hearings, testified that the proposed project is consistent with the Alameda County policies set forth in the East County Area Plan, as modified by Measure D. (RT 9/11/03 p.30:25; p. 31 1-11; Exh 64G) Mr. Martinelli confirmed that the Alameda County Board of Supervisors (Board) had taken action in granting a tentative partial cancellation of the Williamson Act contract for the parcel, and that in doing so, the Board found the project to be consistent with the East County Area Plan, as modified by Measure D. (RT 9/11/03 p. 49:15-19; Exh. 21)

Based on information from Alameda County staff, Mr. Martinelli's testimony, and the resolution passed by the Board, staff recommends that the TPP be found to be in compliance with applicable local LORS. (Exh. 16, 17, 18, 19, 20, 21, 51, 64A, 64B, 64C, 64E, and 64G)

V. The Proposed Project Will Not Cause a Significant Adverse Impact to Biological Resources, and with Implementation of Staff's Proposed Mitigation the Project Will Comply with All Applicable Biological Resources LORS

Staff has concluded that, upon implementation of staff's proposed mitigation, the proposed project will comply with all LORS and will not result in significant, adverse impacts to biological resources. (Exh. 51 p. 4.2-51) In addition, the U.S. Fish and Wildlife Service (USFWS) has indicated that it will be able to issue a biological opinion consistent with staff's recommendations and prefers staff's proposed use of recycled water instead of the applicant's proposed cooling source from Kern County. (RT 9/18/03 p.74:22-25)

A. Staff's analysis concludes that the TPP will not cause significant adverse impacts to biological resources

Staff analyzed the direct, indirect, and cumulative impacts of the proposed project on special status species and their habitats. Species of particular concern in the project area include the San Joaquin kit fox, California tiger

salamander, California red-legged frog, burrowing owl, and special status plants (i.e., big tarplant). (RT 9/11/03 pp. 115-117:1-21) These species do occur and/or have the potential to occur on the project site. Staff's analysis also incorporated the concerns expressed by the USFWS, and the California Department of Fish and Game (CDFG). (RT p. 114: 15-25; pp. 115-119; p. 120:1-10; Exh. 51 pp. 4.2-39 through 4.2-51)

The interveners raised concerns that impacts to biological resources could result from the noise, air emissions, lighting, water use, and electrical infrastructure (i.e., bird collisions with electrical wires) associated with the proposed project. In addition, the interveners stated that the proposed project would impact vernal pool habitats. Staff's testimony provides sufficient evidence for the Committee to conclude that, with staff's recommended mitigation, the proposed project will not cause significant adverse effects to biological resources. (RT p. 114: 15-25; pp. 115-119; p. 120: 1-10; Exh. 51 pp. 4.2-31 through 4.2-33)

In specific reference to the proposed project's noise impacts, staff determined that noise levels from the project would not cause significant adverse impacts to biological resources if the proposed mitigation measures set forth in the Noise section of the FSA are adopted and implemented. (RT 9/11/03 p.117: 23-25; p.118: 1-8; Exh. 51 pp. 4.2-32 through 4.2-33) Staff reached this conclusion in consultation with USFWS, CDFG, and management staff of the Haera Mitigation Bank. (RT 9/11/03 p. 117: 23-25; p.118: 1-8; Exh. 51 pp. 4.2-32 through 4.2-33)

With regard to the proposed project's lighting impacts, staff concluded that the mitigation measures proposed in the Biological Resources and Visual Resources sections of the FSA will adequately protect biological resources from significant impacts. (RT p. 118: 9-15; Exh. 51 p. 4.2-33)

Staff analyzed potential biological impacts that may result from the applicant's proposed freshwater source from Kern County. Biology staff determined that there are permit issues related to this water source because it may have impacts

on the Buena Vista Shrew, a federal endangered species listed in March 2002, and endemic to the water source area in Kern County. (Exh. 58, Exh. 63) USFWS expressed grave concern over the declining conditions of the Buena Vista Shrew habitat and stated that the surviving population is considered to be at a higher risk of extinction now than at the time of listing. (RT 9/18/03 p. 80:23-25; p. 81:1-9) Susan Jones of the USFWS testified that if the applicant pursues its proposed water source, the timing of completion of the biological opinion would be uncertain. Furthermore, the USFWS concluded that without a Section 7 or a Section 10 consultation for the Kern County water banking project, it could not conclude that the water source is in compliance with the Endangered Species Act. (16 USC Section 1531 et seq.) (RT 9/18/03 p. 79:1-16: p. 80:12-19)

Staff has proposed an alternative cooling source, recycled water from the City of Tracy (see Water and Soil Resources section below). If the applicant were to use the recycled water for cooling purposes, there is evidence that the overall quality of discharge into the Delta by the Tracy Water Treatment Facility would be improved, thus providing a benefit to biological resources in the Delta. (Exh. 52 p. 2.13-13) Potential biological impacts from staff's proposed recycled water source would not result in any significant impacts to biological resources. (Exh. 52 pp. 2.2-24 through 2.2-25) The USFWS stated that a biological opinion would be forthcoming in 3-4 months if the staff-proposed recycled water source is required by the Commission. (RT 9/18/03 p. 75:1-14) The staff-proposed water source would eliminate the issues associated with impacts to the Buena Vista Shrew should the TPP receive certification. (RT 9/18/03 p. 75:7-14)

With regard to the potential biological impacts resulting from the project's pollutant emissions, staff determined that, with the mitigation proposed in the Air Quality section of the FSA, the impacts from the project's emissions to biological resources would be less than significant. (RT p. 118: 16-24; Exh. 51 pp. 4.2-29 through 4.2-31)

B. The proposed mitigation developed among the various agencies will mitigate for any potential impacts to San Joaquin kit fox

The proposed mitigation set forth in the condition of certification **Bio-13** addresses habitat compensation for potential impacts to existing habitat of species of special concern, including San Joaquin kit fox. (Exh 51 p. 4.2-61) The mitigation outlined in **Bio-13** and described in the FSA was developed through extensive consultation with various agencies having jurisdiction over wildlife resources. (RT 9/11/03 p. 119-120:1-10)

Staff and the responsible wildlife agencies (USFWS and CDFG) initially opposed the proposed TPP location, due to the high potential for impacts to valuable San Joaquin kit fox habitat. (Exh. 51 p. 4.2-13) The USFWS, CDFG, and staff were concerned about the significant permanent and temporary losses of habitats used by special status species. The USFWS indicated that, in order to remain at the proposed location, the project would need to provide protection for the larger kit fox habitat corridor. In order to ensure that this protection is effective in protecting this critical habitat corridor general habitat compensation ratios that are typically used to determine the amount of compensation habitat required for mitigation could not be used for TPP mitigation. The project area as a whole constitutes critical habitat that serves as a route for kit fox between their northern territory range and southern range. Therefore the project impacts would need to be mitigated by measures that reinforce and protect the existing habitat and critical corridor, rather than merely setting aside habitat parcels in any location. Additionally, USFWS required that the habitat mitigation occur in the general vicinity of the project site, not at an off-site preserve area, and that the mitigation provide substantial protection of this corridor to maintain a connection between the northern and southern ranges inhabited by kit fox. Staff agrees with this opinion. (Exh. 51 p. 4.2-45; RT 9/11/03 p. 119-120:1-10)

After several consultations over a period of months, the applicant proposed adequate mitigation for potential impacts to San Joaquin kit fox. To mitigate the

project's permanent impact on a portion of the critical corridor, the applicant has agreed to permanently preserve 465 acres of critical habitat in the general vicinity of the project site. The applicant's proposal includes the purchase and preservation of 320 acres of grassland habitat located in the general vicinity of the project area in addition to the original proposal set forth in the AFC. The applicant's original mitigation proposal included 145.47 acres of annual grassland contained in three parcels. (Exh. 14, RT 9/12/03 pp. 73-81:1-17) The applicant has also committed to return the construction laydown area to its original state after use for construction purposes. Staff requested that the maximum acreage of the construction laydown area be restored to grassland after use as set forth in **Bio-13**. (Exh. 51 p. 4.2-45 through 4.2-46)

The total habitat compensation for the project's habitat impacts will therefore be approximately 465 acres. The 320 acre parcel is part of the Castello property, one of the parcel options identified and proposed by USFWS during consultation. (Exh. 51 p. 4.2-45) By protecting this parcel the applicant is ensuring the future existence of this critical habitat corridor, and providing appropriate habitat for the San Joaquin kit fox and other special status species that occur in the project area. Staff concludes that this parcel would mitigate for habitat loss and provide for habitat connectivity, ensuring access for San Joaquin kit fox between the southern portion of the species' geographic range and the northern end of its range. (Exh. 51 p. 4.2-45)

Staff proposes in **Bio-13** that a habitat management plan be finalized and submitted for review and approval by the Commission's compliance project manager in consultation with technical staff and the appropriate wildlife agencies. Staff has set forth requirements in **Bio-13** to address the ongoing management of the habitat plan. (Exh. 51 p. 4.2-46)

Staff, after extensive consultations with the applicant and state and federal agencies, believes that the proposed mitigation set forth in the FSA would

mitigate any potential impacts to San Joaquin kit fox and preserve the critical corridor needed for kit fox migration.

C. Neither the interveners nor the public were denied an opportunity for meaningful and informed participation in the proceeding

The intervenor CARE's witness, Dr. Smallwood, claimed that he was denied an opportunity for meaningful and informed participation in the TPP proceeding. (RT 9/11/03 Exh. 103 p. 1-2; 4-5) First he claimed that he did not receive a copy of the biological resources mitigation implementation and monitoring plan (BRMIMP) despite the fact that it has been available in draft form for several months, and was docketed in the proceeding on January 29, 2003. (Exh 6 and 14; RT 9/11/03 p. 141:18-25; p. 142:1-24) Dr. Smallwood raised the same concern about not receiving a copy of the BRMIMP in the East Altamont Energy Center proceeding over a year ago. (EAEC RT p. 427: 10-15) In this proceeding and in the EAEC proceeding Dr. Smallwood has indicated that he is not sure if he requested to see the draft BRMIMP, yet he was previously informed that the document existed in this proceeding based on the docket log and his experience in the EAEC proceeding over a year ago. (RT 9/18/03 p. 141:18-25; EAEC RT p. 468: 8-13) As an intervener, CARE had full access to project submittals and could easily have obtained the document for the witness to review. The failure to do so does not result in denial of an opportunity to participate in the proceeding. Additionally, Dr. Smallwood argued that, because the BRMIMP is in draft form, the Commission has not allowed for sufficient public participation. Staff explained in its testimony on September 11, 2003, that the purpose of the draft BRMIMP is to set forth a process for implementation of mitigation measures required by the Commission, USFWS, and CDFG. A final BRMIMP could not be developed or approved until after certification, as it would need to incorporate all final conditions of certification, conditions set forth in the biological opinion, and how each condition will be implemented. Staff also explained the process for

future public participation in finalization of the BRMIMP for the TPP. (RT 9/18/03 p. 120:1-25; 121:1-12)

Dr. Smallwood also asserted that the "piecemeal" release of documents hindered his ability to analyze potential impacts of the project. (Exh. 103 pp. 4-5) To the contrary, the ability to review documents as they are developed enables a participant to actively participate in the formation of mitigation measures as opposed to solely commenting on them after they have been fully developed. If Dr. Smallwood desires to review only one complete document, he may review the PMPD and issue comments thereon. Allowing him to participate earlier in the process and review documents as they are developed in no way compromises his ability to effectively participate and comment. In fact, most would say an opportunity for early participation is beneficial rather than detrimental.

D. Staff's review of the proposed TPP is both appropriate and legally required

Dr. Smallwood asserted that staff should not be involved in the preparation of the environmental review documents, but should only review the information provided by the applicant. (Exh. 103 p. 5) He offered no evidence to support his assertion that by drafting its own document, staff would be less inclined to incorporate comments from the public or other agencies. In fact the FSA contains responses to all of the comments staff has received concerning the proposed project. Dr. Smallwood's suggestion that staff merely read and pass judgment upon the AFC would, if followed, lead to an abdication of staff's mandatory responsibilities under the Commission's regulations. (Cal. Code Regs, tit. 20, § 1747.)

VI. Adequate Fire Protection Services are in Place to Serve the TPP

The interveners in this case have raised concerns regarding the adequacy of fire-response time if an emergency occurred at TPP. Interveners do not believe that the Alameda County Fire Department could adequately serve the facility if a fire occurred particularly during peak commute times. (Exh. 102 Worker Safety and

Fire Protection exhibit did not include page numbers) Staff conducted a thorough analysis and review of all materials provided on the subject area of Fire Protection and Worker Safety. In addition to the review of materials, staff had several discussions with various authorities responsible for providing fire protection in the area of the proposed project. (Exh. 51 p. 4.14-4 through 4.14-5; Exh. 53 p. 16-18) For purposes of the evidentiary hearings staff provided a panel of fire protection professionals in the area that included: the Alameda County Fire Chief Bill McCammon; Richard Brown, hazardous materials specialist and certified chief officer of the State of California, Alameda County Fire Department and; Fire Chief, Randy Bradley, Lawrence Berkley National Laboratory. Assistant Chief Larry Fragosa, City of Tracy Fire Department was also present and graciously agreed to testify as part of the panel with no prior notice. (RT 9/10/03 p. 180-181). Based on this analysis and the various conversations with the local fire protection professionals, staff has concluded that the proposed project is in compliance with all LORS and will not cause a significant adverse impact or risk to public health and safety. (Exh. 51 p. 4.14-11 through 4.14-12)

Staff reached these conclusions based on standard practices and time responses allowed within the industry. Staff determined that even if the Tracy Fire Department refused to honor the mutual aid agreement with the County of Alameda, the response time of Alameda County to any emergency at TPP would be adequate. Alameda County Fire Department response time would be from 14-30 minutes depending upon the location responding to the emergency. (Exh. 124 p. 26) Staff believes this is an acceptable response time based on professional standards of the industry.(Exh. 51 p. 4.14-11 through 4.14-12) Moreover, Assistant Chief Fragosa of the City of Tracy and Alameda County Fire Chief Bill McCammon stated that the two departments had come to an agreement regarding the mutual aid situation and would be sharing additional resources received from the applicant through a community benefits package. (RT 9/10/03 p. 194: 5-25; 196-197:1-10) Based on the information provided

during the evidentiary hearings, staff believes that sufficient fire protection measures are in place, Alameda County has the resources to adequately serve the proposed facility, and the City of Tracy, Fire Department is willing and able to participate in a mutual aid agreement with Alameda County in the event that their services are needed. Therefore, staff would request that the committee adopt the conditions of certification proposed by staff in the FSA (Exh. 51 p. 4.14-12 through 13; Exh. 124 p. 23)

VII. Appropriate Safety Measures are in Place to Address Transportation of Hazardous Materials to TPP

The interveners have expressed concerns regarding the transportation route and safety measures to be put in place for the transport of hazardous materials to the TPP. The interveners have expressed particular concern regarding the transportation of aqueous ammonia (RT 9/10/03 p. 74:21-25; 75-3). Staff has concluded that the use, storage, and transportation of hazardous materials for the proposed project would not result in any significant, adverse impacts associated with the transportation of aqueous ammonia to the project site, including transportation of material under “normal” fog conditions. (RT 9/10/03 p. 77:22-24) As stated in staff testimony. (Exh. 51 p. 4.4-10 through 4.4-4; Exh. 124 pp. 17-19) Staff is aware that “normal” fog may occur in the proposed project area during the months of November through April. There are no records, however, of dense fog in the area. (Exh. 124 p. 17-19) Staff does not believe that “normal” fog poses a substantial increase of risk for motor vehicle accidents, and therefore is not recommending additional conditions to specifically address fog conditions. However, if the Committee finds such a condition is warranted by the record, staff has provided suggested language for such a condition in the supplemental testimony attached to this brief and docketed on 11/3/03. (Exh. 124 p. 17-19)

VIII. Staff believes the Use of Fresh Water for TPP Cooling Purposes is a Waste or Unreasonable Use, as the City of Tracy Will be able to Provide a Sufficient Quantity of Recycled Water at a Reasonable Cost Prior to the Start of TPP Operation

As discussed below, the Energy Commission has the authority to require use of recycled water. The use of recycled water in this case is reasonable because the water will be available for use prior to June of 2006 (earliest date applicant would be in operation), (citation) at a comparable cost to the applicant's proposed use of fresh water. In addition, it is technically feasible to deliver the water to the project; use of the water would not adversely affect the water rights of others or fish or plantlife, nor would use of the recycled water cause adverse health impacts. Staff has analyzed this alternative in detail including the pipeline route and concludes that no significant adverse impacts would result from use of the City's recycled water by TPP. (Exh. 51, p. 4.13-46 through 4.13-47; Exh. 51 section 4.13a; Exh. 52 p. 2.13-18) Based on its analysis, staff requests that the Committee include in its proposed decision a condition of certification requiring the applicant to use recycled water as offered from the City of Tracy.

A. The Energy Commission has broad authority to specify conditions requiring the use of recycled water for power plant projects if the conditions bear a reasonable relationship to the public needs created by the project

The Commission has broad authority, under the Warren-Alquist Act, to specify conditions for the permitting of a project. Public Resources Code section 25216.5 gives the Commission the authority to "formally act to approve or disapprove applications, including specifying conditions under which approval and continuing operation of any facility shall be permitted."

Public Resources Code section 25500 gives the Commission exclusive authority to permit power plants 50 megawatts and above. The Commission's permit is in lieu of all other local, regional, and state permits. (Pub. Resources Code § 25500.) Thus, the Commission stands in the place of, and

has the permitting authority of, all such governmental entities that would have jurisdiction over a project, but for the Commission's exclusive jurisdiction.

Additionally, Public Resources Code section 25218 gives the Commission authority to "…adopt any rule or regulation, or *take any action, it deems reasonable and necessary to carry out the provisions of this division."* (Pub. Resources Code § 25218 emphasis added).)

And lastly, Public Resources Code section 25523(a) requires the Commission to include in the permitting decision conditions relating to the design, siting, and operation of the project in order to "protect the environment and assure public health and safety." In this case, requiring as a condition of certification the maximum use of recycled water for evaporative cooling, process use and landscape irrigation would serve to protect the environment by helping to conserve fresh water, a limited resource in the state.

To avoid being an abuse of discretion, conditions must bear a reasonable relationship to the public needs created by the project. (Ayers v. City Council of Los Angeles, (1949) 34 Cal.2d 31) However, the project itself does not have to create the need (such as the need to conserve water), but must at least contribute to it in order to justify a condition addressing the need. (Associated Home Builders of the Greater East Bay, Inc. v. City of Walnut Creek (1971) 4 Cal.3d 633) The record shows that California is facing an overall statewide water shortage and has a statewide need to conserve fresh water. (Exh. 67A) Department of Water Resources Water Plan Update-Bulletin 160 state that as of 1995, a 1.6 million a fy shortage of water supply existed in California in 2020, the shortage is estimated to be 2.4 million in an average year and 6.2 million af in a drought; This water shortage is anticipated to occur unless ----- efforts to conserve water and implement a comprehensive planning process that fully considers all water options in California (Exh. 67A). The proposed project contributes to this need for water conservation by the substantial amount of water it requires for evaporative

cooling. Its projected use of water and the statewide need to conserve water justify requiring the use of recycled water, which, as discussed below, is available in this case to foster water conservation.

Using this authority to require the use of recycled water is also consistent with promoting one of the policies of the Warren-Alquist Act: "It is the policy of the state and intent of the legislature to promote all feasible means of energy and water conservation and all feasible uses of alternative energy and water supply sources." (Pub. Resources Code section 25008) Thus, a condition to require the use of recycled water is reasonably related to state water policy and one of the objectives of the Warren-Alquist Act and is, therefore, a reasonable use of the Commission's permitting authority.

B. Pursuant to the California Constitution, the Energy Commission must decide whether the proposed project's use of fresh water constitutes a waste or unreasonable use of water if recycled water is available

The Warren-Alquist Act expressly authorizes the Energy Commission to make findings regarding a proposed project's conformity with (1) applicable air and water quality standards; and (2) other relevant local, regional, state and federal standards, ordinances or laws and to consult with concerned agencies to try to eliminate any non-compliance. (Pub. Resources Code sections 25523). We turn to the applicability of the California Constitution and its broad policy regarding the beneficial use and conservation of water, a recognized precious resource in the state.

Article X, Section 2 of the California Constitution provides in part:

> It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use of unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the

> reasonable and beneficial use thereof in the interest of the people and for the public welfare…

The California Constitution is the highest expression of state law, and its provisions apply over all other state laws to the extent that a conflict in the law exists. [REDUNDANT AND UNNECESSARY; DELETE.]In deciding whether a proposed power plant project will satisfy this Constitutional provision, the Commission must answer the following question: Would the use of limited fresh water supplies for power plant applications constitute a "waste and unreasonable use" of such fresh water when a feasible alternative (such as recycled water) is available? Since the Constitution itself does not expressly answer this specific question, we turn to case law and other related LORS which do address the issue of what constitutes a "waste or unreasonable use" of water in California.

C. State Water Policy and Law Set Forth a Preference for the Use of Recycled Water for Industrial Cooling Purposes when Recycled Water is Available, in which Case, the Use of Fresh Water would be a Waste or Unreasonable Use

1. Case law

In determining whether a particular use of water constitutes a "waste or unreasonable use" the courts have held that such a determination depends on the circumstances of each case and "such an inquiry cannot be resolved in vacuo isolated from state-wide considerations of transcendent importance." (Joslin v. Marin Municipal Water District (1967) 67 Cal.2d 132, 140) Staff believes that the circumstances of this case are such that not requiring the maximum use of recycled water by TPP would lead to a waste and unreasonable use of fresh water, given the feasibility of using recycled water for this project.

2. Laws and policies that evidence the state's objectives to conserve water and that implement the overarching constitutional principle of reasonable use of water

Staff has considered the question of whether the use of fresh water for power plant cooling constitutes a waste or an unreasonable use or fails to appropriately

conserve the state's waters when there are feasible alternatives. Staff has concluded that it does. We base our conclusion on guidance from a number of Water Code provisions, specifically, Water Code sections 100, 13146, and 13550 et seq., and on State Water Resources Control Board policy (SWRCB) 75-58. Staff has also relied on the Department of Water Resources (DWR) 2003 Draft Update to the California Water Plan (Bulletin 160) and the recently released draft Integrated Energy Policy Report (IEPR) released by the Commission in October of 2003.

a. California Water Code section 100

Water Code section 100 further reiterates the state policy regarding water evinced in the constitution:

> It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such water be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.

b. California Water Code section 13146

In 1969 the State Legislature added section 13146 to the California Water Code This statute provides that:

> State office, departments and boards, in carrying out activities which affect water quality, shall comply with state policy for water quality control unless otherwise directed or authorized by statute, in which case they shall indicate to the state board in writing their authority for not complying with such policy.

Thus, under state statute, all state agencies, including the Energy Commission, are required to comply with water quality control policies of the state unless otherwise directed or authorized by statute. The predominant theme in these policies is to address the interrelationship between water quality and quantity, and the need for water conservation.

c. California Water Code section 13550 et seq.

In 1977, during an extended drought in California, the State Legislature added Article 7 concerning waste water reuse policies to the California Water Code (sections 13550 et seq). Among other things, this article of the Water Code now provides the following:

> The Legislature hereby finds and declares that the use of potable domestic water for nonpotable uses, including…industrial use, is a waste or an unreasonable use of water within the meaning of Section 2, Article X of the California Constitution if reclaimed water is available which meets all [statutorily specified] conditions, as determined by the state board, after notice to any person or entity who may be ordered to use reclaimed water or to cease using potable water and a hearing held pursuant to [specified provisions of] the California Code of Regulations.

Specifically, the Legislature has found that the use of potable domestic water for nonpotable uses, including industrial uses, is a waste or an unreasonable use of the water within the meaning of the Constitutional provision, provided that the SWRCB has found that there is recycled water available that is of adequate quality, available at a reasonable cost, doesn't cause health impacts or adversely affect water rights, fish or plantlife (Water Code 13550). Similarly, Water Code section 13552.6(a) states that the use of potable domestic water for cooling towers is a waste or unreasonable use within the meaning of the Constitutional provision if the SWRCB determines that recycled water is available that meets the conditions articulated above.

In addition, Water Code section 13551 provides:

> A person or public agency…shall not use water from any source of quality suitable for potable domestic use for nonpotable uses, including…industrial… uses, if suitable reclaimed water is available as provided in Section 13550…

In the 1990s, state law became even more specific regarding the use of potable water for power plant purposes, and the following provision was added to the California Water Code:

> Water Code section 13552.6(a)- The Legislature hereby finds and declares that the use of potable domestic water for…cooling towers…is a waste or an unreasonable use of water within the meaning of Section 2 of Article X of the California Constitution if recycled water, for these uses, is available to the user, and the water meets the requirements set forth in Section 13550, as determined by the state board after notice and a hearing.

Water Code section 13552.8 authorizes any public agency to require the use of recycled water in cooling towers if the SWRCB determines it is available, does not affect any existing water right, and is subject to appropriate control or mitigation of public exposure to cooling tower mist.

These statutes reflect a strong legislative policy against the use of fresh water for nonpotable uses where feasible alternatives are available. And, although the SWRCB is not being asked to determine whether the Water Code standards are met in this case, staff believes that the Energy Commission, whose license is in lieu of all other state permits, can and should make the same determination in its siting cases. For further guidance, staff refers to Water Code section 13146, which directs other state agencies to "comply with state policy for water quality control unless otherwise directed or authorized by statute…" Thus, where there is an alternative to the use of fresh water for powerplant cooling that is economically, environmentally, legally, and technologically feasible, the Commission should disallow the use of fresh water for that purpose.

d. SWRCB Resolution No. 75-58

For further support of our conclusion that the use of fresh water for power plant cooling is a waste or unreasonable use and does not serve to conserve the state's waters, we look to SWRCB policy. Resolution 75-58 establishes priority for sources of cooling water for power plants, with high-quality inland water being

the lowest priority. The Resolution also states that "[w]here the Board has jurisdiction, use of fresh inland waters for power plant cooling will be approved by the Board *only* when it is demonstrated that the use of other water supply sources or other methods of cooling would be environmentally undesirable or economically unsound." (Emphasis added) It is important to note that in May 2002, the Chair of the State Board sent a letter to the Commission's Siting Committee, stating that "the basic principals of the policy are sound. The policy requires that the lowest quality cooling water reasonably available from both a technical and economic standpoint should be utilized as the source water for any evaporative cooling process…." (Exh. 51 p. 4.13-28 through 4.13-29)

D. It is reasonable for the Energy Commission to require the TPP to use recycled water for cooling purposes

Once the authority to require recycled water is established, the Commission must determine whether or not it is reasonable to use such authority. Staff believes that given all the circumstances presented in this case, it is reasonable to require the TPP to use recycled water and would be unreasonable not to require the use of recycled water for power plant cooling purposes. Staff has concluded that a feasible alternative cooling source is available. The identified cooling source is recycled water from the City. Based on staff's compilation of environmental and engineering measures presented in the FSA and supplements to the FSA, staff recommends that recycled water from the City be required as the cooling source for the TPP. After accounting for financial elements and no supply interruptions, the Tracy recycled water supply (set forth as Alternative 3 in staff's Alternative Cooling Analysis (Exh. 51 p. 4.13a-57) is comparable in cost with the applicant's proposed water source. Staff concludes that the applicant's proposed water source is a waste or unreasonable use of water as defined by the State Constitution, Water Code, and adopted state policies. TPP should, therefore, be required to use available recycled water rather than its proposed fresh water source.

1. Recycled water will be available before the earliest date that the TPP could be operational, June 2006

Recycled water from the City will be available for use by TPP prior to June 2006. Staff has put forth testimony and documentation showing that its recommended water source will be available both physically and contractually in time to serve TPP.

Staff and the City consulted extensively as to the City's ability to provide recycled water for TPP cooling purposes. The City has provided documentation that the Waste Water Facility expansion (Expansion) has been approved by the City Council through a certified final environmental impact report (FEIR) (Exh. 66). In addition, Steven G. Bayley, Deputy Director of Public Works/Utilities for the City provided written testimony that included a timeline for the Expansion approvals. (Exh. 55A)

Mr. Bayley's testimony states:

> The City's wastewater treatment plant (WWTP) will be upgraded and expanded regardless of whether applicant for the TPP utilizes the recycled water for industrial cooling at the TPP. The City of Tracy has taken the measures outlined on the attached exhibit in order to ensure completion of the WWTP in 2006, with a target completion date of January 2006. The attached exhibit outlines some of the measures taken in furtherance, and target dates for completion, of the WWTP expansion and upgrade project. Once construction is substantially complete, the WWTP will be capable of producing Title 22 water for the TPP.
>
> The WWTP project is needed to enable the City to meet the stringent regulatory requirements for discharge of treated wastewater into the Delta. The City has an approved capital improvement project in the current fiscal year budget for the upgrade to the WWTP. The City anticipates calling for construction bids in January 2004 to proceed with construction of the WWTP. The City's recycled water supply produced by the WWTP will be very reliable because the City needs to treat the wastewater on a virtually continuous basis for water quality reasons. There are numerous redundancy measures built into the treatment facilities in furtherance of such reliability. Therefore, this resource would provide a reliable water supply for the TPP.

Also included in Mr. Bayley's testimony is a "Past and Projected Timing of Events- WWTP Expansion Project". This timeline shows that the FEIR was certified in October of 2002, the final design is to be 90% complete by November of 2003, the City will call for bids in January of 2004, construction is intended to begin in March of 2004, and construction will be substantially complete by January 2006. (Exh. 55A) The timelines provided by the City are well in advance of the June 2006 date that the applicant provided as the earliest date the project could be on line. (RT 9/12/03 p. 26:13-16)

Additionally, if for some unforeseen circumstance the recycled water is not available by June 2006, or the applicant needs water in advance of that date, the City has stated it is in a position to provide an interim water supply, using groundwater as the source. (RT 9/12/03 p. 174-175:1-4) Based on the testimony provided by the City, staff believes all permits and approvals will occur in a timely manner. Mr. Vince Wong on behalf of Zone 7, the proposed fresh water supply purveyor, testified that he would support appropriate use of recycled water for industrial cooling purposes. Mr. Wong also testified that he is familiar with the process that the City would need to complete in order to provide recycled water to TPP. Zone 7 is not opposed to TPP utilizing the City's water for cooling purposes, and does not believe that the City would face any difficulties in obtaining the appropriate approvals to serve TPP. (RT 9/12/03 pp. 208-211:1-5) Staff has reviewed the City's proposal for an interim water supply and has concluded that no significant adverse impacts or conflict with applicable requirements would occur as a result of the City providing such an interim water supply if needed. (RT 9/12/03 p. 168: 9-16)

Therefore, based on the above information the Committee should find that the recycled water is physically available for use by TPP.

2. The recycled water from the City of Tracy will be "commercially" available, at a comparable cost prior to June 2006

The applicant argues that there is too much uncertainty associated with the City's reclaimed water to make it "commercially" available. Staff disagrees with this argument and would assert that the City has made a good faith effort to work with the applicant to address contractual issues. (RT 9/18/03 p. 173:11-17)

The City adopted a resolution dated December 2, 2002. (Exh. 121) This resolution stated that the City is willing to enter into negotiations with the applicant for use of its recycled water. The resolution also states that the intent is to provide the water at no cost to the applicant for an initial 20 year term, and that the City is willing to work with the applicant to ensure that all permits and approvals for the use of the recycled water and construction of the recycled water pipeline are completed. (Exh. 121; Exh. 122)

The City has presented evidence that it does not believe that the applicant has fully pursued options to utilize the City's reclaimed water. (RT 9/12/03 p. 176 18-25; p. 177:1-14) During the hearings the applicant testified that it would be flexible and willing to work with the City in reaching mutually agreeable contractual terms for recycled water. (RT p. 37: 14-25; 38:1) This appears to be a change of heart from the City's perspective. The City testified to experiencing some difficulties with past negations between themselves and the applicant. (RT 9/12/03 p. 177:2-14)

Based on the City and applicant's current willingness to find mutually agreeable terms that will address all parties concerns, it appears that no significant impediments to the use of recycled water by TPP exist and that the water is contractually or "commercially" available.

3. The City's recycled water is available at a reasonable cost

Staff conducted a cost analysis based on the economic comparison of initial capital and annual operation costs. (This analysis is summarized in Exh. 54 Table 5A, p. 13; Exh. 51 Soil and Water Resources Appendix A, Table 5, pg. 4.13a-22 through 4.13a-23) In conducting this analysis staff examined the data

in terms of reasonable cost and concludes that comparable costs could be found based on consideration of a reasonable range of cost for capital expenses and operating expenses.

Staff's analysis considered the following elements related to water supply and treatment. (Exh. 54 p. 14-15) The analysis considers initial capital costs that would be expended during construction, and ongoing operation and maintenance costs of the facility over a 30-year period. All costs have been converted into both a present value and an average annual rate of total costs in order to compare all capital and annual costs associated with the recycled water option (Option 3) and the applicant-proposed Zone 7 fresh water option (Option 4). Costs have been estimated as a range of expected costs due to potential variability in construction bids, future energy prices, water purchases, and other necessary costs. Staff concluded that, overall, Options 3 and 4 are comparable prior to consideration of potential water supply interruption. (Exh. 54 p. 14)

Staff conducted its assessment using both a low and a high estimate for Options 3 and 4. For the low estimate, Option 3 is about $3 million less than Option 4 over the life of the project. Using present value of all costs for a 30-year period, staff calculated only a 3% difference in total costs (Option 3 costs- $98, 484,711 vs. Option 4 $102, 590,435). For the high estimate, staff concluded that Option 4 is about $8 million less than Option 3. The present value of all costs for the 30-year period differs by 7% of total costs (Option 4 costs- 112,169, 559 vs. Option 3 $104,567,680). (Exh. 54 pp. 9-15)

Staff also considered potential effects of water supply interruption. With this consideration Option 3 is lower in cost than Option 4 in both the high and the low range, with an estimate of Option 4 costs being from $25 million (25%) to $13 million (12%) more, respectively. (Exh. 54 9-15)

Staff also compared the alternatives on the basis of incremental power production cost attributable to water supply. The water supply costs here are

also comparable. The low and high estimates differ by only $0.00005/KWH and $0.00008/KWH (less than 1/100th of a cent per KWH) before consideration of water supply interruptions. (Exh. 54 9-15)

Staff, based on the information set forth in the FSA (Exh. 51, sections 4.13 and 4.13a), supplements to the FSA (Exh. 52, section 2.13; Exh. 54 pp. 9-15), and testimony presented on September 12, 2003, believes the difference in costs of water supply Options 3 and 4, when considered on both an equivalent cost basis (present value) and as an incremental power production cost attributable to water supply, are negligible. Staff therefore concludes that the cost for use of the City's recycled water and the applicant's proposed water for TPP cooling purposes are comparable.

E. Based on the Application of State Law, Policy, and the Present Facts, the Applicant Should be Required to Utilize the Recycled Water from the City for Power Plant Cooling Purposes

State water policy 75-58 requires that the lowest quality cooling water reasonably available from both a technical and economic standpoint should be utilized as the source water for any evaporative cooling process…." (Exh. 51 p. 4.13-28 through 4.13-29) This statement was provided to the Commission by the SWRCB in May of 2002. Based on the information provided in the FSA (Exh. 51, section 4.13 and 4.13a; Exh. 52, and 54, pp. 9-12), information provided by the City (Exh. 55A and testimony of Steve Bayley September 12, 2003), and testimony of September 12, 2003, the Committee should find that the City's recycled water meets the standard set forth by the SWRCB as the lowest quality cooling water reasonably available from both a technical and economic standpoint. Use of fresh water, as proposed by the applicant, constitutes a waste or unreasonable use of water considering recycled water is available. Staff's recommendation that TPP use recycled water is consistent with the State Constitution and state water policy as stated in the Warren-Alquist Act, the Water Code, and SWRCB's policy 75-58, which guide the conservation of fresh water.

Staff's recommendations are also consistent with new policies being considered by the Commission in the first biennial Integrated Energy Policy Report, as well as DWR's 2003 Draft Update to the California Water Plan (Bulletin 160) which identifies water conservation measures, not new water supplies, as being key to meeting the state's rapidly growing demand for fresh water and enhancing environmental protection.

IX. Conclusion

In conclusion, staff believes the record supports the conclusions presented in staff's testimony. With the mitigation proposed by staff in its conditions of certification, the project will not cause any significant adverse impacts in the areas analyzed to date.

Respectfully submitted,

DATED: November 3, 2003

DARCIE L. HOUCK
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California Energy Commission